

The opinion in support of the decision being entered  
today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* BARRY VAN GEMERT,  
ANIL KUMAR, FRANK P. MALLAK  
and ROBERT W. WALTERS

APPELLANTS

---

Appeal No. 2007-2237  
Application 10/315,656<sup>1</sup>  
Technology Center 1700

---

Decided: 27 November 2007

---

Before BRADLEY R. GARRIS, CAROL A. SPIEGEL and  
MARK NAGUMO, *Administrative Patent Judges*.

SPIEGEL, *Administrative Patent Judge*.

DECISION ON APPEAL

---

<sup>1</sup> Application filed 10 December 2002 ("the 656 Application"), claiming the benefit of priority to Provisional Application 60/340,047, filed 10 December 2001. The real party-in-interest is said to be PPG Industries Ohio, Inc. (Brief on Appeal filed 18 August 2006 ("Br.") at 2).

## INTRODUCTION

This is an appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1-13. Claims 14-21, the only other claims pending in the '656 Application, have been withdrawn from consideration. We have jurisdiction under 35 U.S.C. § 6(b). We REVERSE.

## THE SUBJECT MATTER ON APPEAL

The subject matter on appeal is directed to methods of cast molding contact lenses such that a photochromic material, capable of lightening or darkening in response to light is localized in the central area of the contact lens. The claimed methods use two polymerizable monomer compositions, one of which contains the photochromic material, and a casting mold comprising "a concave member having a pupillary region and a convex member."

According to Appellants' specification, a typical casting mold for making contact lens has two members, a convex member for forming the front of the contact lens and a concave member for forming the back of the contact lens ('656 Application at 10:23-31). A polymerizable monomer is dispensed into the concave member; the convex member is press-fitted into the mold; and, the monomer is "cured" (polymerized), e.g, with ultraviolet light and/or heat, to form the contact lens ('656 Application at 10:26-11:3). The contact lens is removed from the casting mold and, optionally, further processed, e.g., to hydrate the lens or to remove unreacted monomer ('656 Application at 11:4-18).

Appellants' specification describes localizing photochromic material in the central "pupillary" region of the contact lens by separately adding two polymerizable monomer compositions, one of which contains photochromic

material, to the concave member of the casting mold. Viscosity differences may be used to limit the mixing of the two polymerizable monomer compositions, thereby localizing the photochromic material in the pupillary region of the contact lens ('656 Application at 18:1-2). For example, if a first more viscous polymerizable photochromic monomer composition and a second less viscous polymerizable monomer composition were used to cast contact lenses, the first more viscous polymerizable photochromic monomer composition is said to tend to pool in the center of the concave member of the casting mold and not to flow as readily towards the edges of the contact lens body during press-fitting of the convex member ('656 Application at 18:1-6 and 28-35). Alternatively, "a dispensing means that adds material in a non-disruptive or non-turbulent fashion so as to avoid mixing or disturbing the material already in the mold, can be used" ('656 Application at 16:6-9).

Claim 1 (Br. at 24) illustrates the subject matter on appeal and reads:

1. A method for producing a contact lens comprising a photochromic pupillary region comprising:

a) adding a volume of a first polymerizable monomer composition comprising a first viscosity and a photochromic amount of at least one photochromic material to a concave member of a casting mold comprising a concave member having a pupillary region and a convex member, said volume being sufficient to produce a photochromic pupillary region in an at least essentially cured contact lens;

b) adding a volume of a second polymerizable monomer composition comprising a viscosity at least 300 centipoise less than said first polymerizable monomer composition to the

concave member of the casting mold, the total volume of the first and second polymerizable monomer composition [sic] being sufficient to produce an at least essentially cured contact lens;

c) affixing the convex member to the concave member of the casting mold; and

d) at least essentially curing the polymerizable composition in the casting mold; wherein the extent of photochromic activity in the contact lens body is less than 50 percent of the lens body area.

#### THE REJECTIONS

The Examiner relies upon the following references<sup>2</sup> of record as evidence of obviousness:

Lemelson	US 4,681,412	Jul. 21, 1987
Pollak	US 4,782,946	Nov. 8, 1988
Gupta	US 5,531,940	Jul. 2, 1996
Hunt	US 6,068,797	May 30, 2000

Appealed claims 1-6 and 8-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gupta in view of Hunt and Lemelson; and, claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gupta in view of Hunt and Lemelson and further in view of Pollak (Answer<sup>3</sup> at 3 and 13).

Gupta discloses a method for manufacturing photochromic lenses comprising (a) applying a layer of a first polymerizable photochromic resin to the molding surface of a mold having a molding surface substantially

---

<sup>2</sup> The reader is advised that no references to *et al.* are made in this Decision.

<sup>3</sup> Examiner's Answer mailed 20 September 2006 ("Answer").

matching the convex surface of a lens preform<sup>4</sup> and partially curing it to form a coated mold, (b) arranging a second polymerizable resin, the lens preform and the coated mold such that the second polymerizable resin is disposed between the convex surface of the lens preform and the coated mold surface, and (c) curing to form a plastic layer bonded to the convex surface of the lens preform on its internal surface and having a photochromic layer on its outer surface (Gupta at 2:35-57). Preferably, the resin coating the mold surface has a viscosity of about 100 to 1,000 centipoise, while the resin bonded to the lens preform has a viscosity of about 10 to 50 centipoise (Gupta at 5:39-44 and 7:44-47).

The Examiner finds that the lens preform "is inherently a portion of the casting mold and a 'convex member,' subsequently becoming part of the contact lens" (Answer at 4, 7 and 10). The Examiner further finds that the method of Gupta, individually or in combination, is "capable of meeting the claimed intended use as contact lenses" (Answer at 15).

Thus, the dispositive issue in this appeal is whether the preform lens of Gupta is encompassed by the convex member of the casting mold recited in all of the claims on appeal.

#### OBVIOUSNESS

All limitations of claimed invention must be taught or suggested by the prior art to establish *prima facie* obviousness. *In re Royka*, 490 F.2d 981,

---

<sup>4</sup> According to Gupta, a "lens preform" is "a plastic finished or semifinished single vision lens with a spherical or aspheric convex surface, without any limitations on the geometry of the convex surface, herein referred to as the casting surface" (Gupta at 5:7-10).

985 (CCPA 1974). The limitations are found, expressly or inherently, in the claims. Furthermore, "[d]uring examination, 'claims . . . are to be given their broadest reasonable interpretation consistent with the specification, and . . . claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.'" *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Initially, we disagree with the Examiner that the preamble of the appealed claims is directed to intended use only. "If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is necessary to give life, meaning, and vitality to the claim, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999). Here, method steps directed towards production of contact lenses are positively recited throughout the body of the claim. Therefore, we interpret the appealed claims to be directed to the production of contact lenses per se and not to production of lenses generically.

We find that one of ordinary skill in the art would have reasonably interpreted the convex member of the casting mold to be distinct from the final contact lens product, consistent with Appellants' specification and the claim language. Although broad claim interpretations are to be encouraged during prosecution, claim limitations -- here, the contact lens product of the process -- may not be ignored. The Examiner has not directed our attention to teachings in the record that might indicate that those skilled in the art would, in fact, consider a lens preform to be a member of the casting mold.

The fatal flaw in the Examiner's rejections is that Gupta, as urged by Appellants, fails to teach or suggest the use of a casting mold having a

Appeal 2007-2237  
Application 10/315,656

convex member distinct from the cured (contact) lens (see e.g., Br. at 7). Consequently, since the convex member of the casting mold used in the appealed method claims cannot reasonably read upon the preform lens of Gupta, the Examiner's rejections must fall.

The secondary references, Hunt, Lemelson and Pollak, cited by the Examiner do not remedy the deficiencies of Gupta discussed above.

#### CONCLUSION

Upon consideration of the record and for the reasons given, it is

ORDERED that the Examiner's rejection of claims 1-6 and 8-13 under 35 U.S.C. § 103(a) as unpatentable over Gupta in view of Hunt and Lemelson is REVERSED;

FURTHER ORDERED that the Examiner's rejection of claim 7 under 35 U.S.C. § 103(a) as unpatentable over Gupta in view of Hunt and Lemelson and further in view of Pollak is REVERSED; and

FURTHER ORDERED that no time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED

Appeal 2007-2237  
Application 10/315,656

Frank P. Mallak, PA  
PPG Industries, Inc.  
One PPG Place  
Pittsburgh PA 15272